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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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In the Matter of	)	
	)	
Amendment of Parts 2 and 15 of	)	ET Docket 98-76
the Commission's Rules to Further	)	RM-9022
Ensure That Scanning Receivers Do	)	
Not Receive Cellular Radio Signals	)	

To: The Commission

COMMENTS OF TANDY CORPORATION

Tandy Corporation ("Tandy"), by its attorneys and pursuant to Section 1.415 of the Commission's Rules, 47 C.F.R. § 1.415, submits these Comments in response to the captioned Notice of Proposed Rulemaking ("NPRM") released on June 3, 1998.[1]

I. INTRODUCTION

Tandy is one of the nation's leading retailers of high quality consumer electronics and telecommunications equipment for consumers and businesses. Each year, more than 60 million Americans visit one of the 6,900 Tandy RadioShack affiliated stores. Among the most important items in these stores are scanning receivers ("scanners"), which are used by law abiding consumers to monitor police, fire, and rescue transmissions, weather notifications, and sporting event communications. Scanners also are critical to the work of a number of important volunteer groups, including police auxiliary and volunteer firefighter units, storm spotter organizations, and disaster

[1] The NPRM was published in the Federal Register on June 10, 1998. 63 Fed. Reg. 31,684 (1998).

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communications volunteers. Tandy is pleased to offer a wide array of scanners to these consumers and volunteers for their lawful use and enjoyment.

Tandy is mindful, however, that some individuals attempt to modify scanners to receive and hear Cellular Radiotelephone Service ("Cellular Service") transmissions in violation of federal statutory law and the Commission's Rules. As a result, though Tandy is not a manufacturer of scanners, Tandy requires its manufacturing vendors to take steps to make it much more difficult to modify the scanners offered at Tandy outlets. Indeed, Tandy was the first retailer in the Nation to work with manufacturers to implement pertinent changes to scanner designs, including the addition of triple conversion designs, higher image rejection schemes, and even potting of certain components. Some of these efforts are outlined in the Petition for Rulemaking filed by Uniden America Corporation ("Uniden Petition").

Accordingly, though Tandy believes that the privacy of Cellular Service transmissions can never be fully guaranteed without meaningful encryption, Tandy supports the Uniden Petition and the efforts of the Commission to curtail the illegal modification of scanners to receive these transmissions. In these Comments, Tandy will address certain of the proposals set forth in the NPRM, with particular attention to maintaining the availability and affordability of the low cost scanners needed by its customers within the scope of any new Commission Rules. Critically, under the Commission's Rules, manufacturers and

retailers of scanners should remain free to employ more sophisticated techniques to deter scanner modifications as those techniques are developed. With this freedom, manufacturers and retailers will be better able to ensure that the privacy of Cellular Service users is protected without undermining the lawful enjoyment and important use of scanners by millions of Americans.

II. IMAGE REJECTION

First, as part of its effort to establish standards to prevent the reception of Cellular Service transmissions, the Commission proposes a signal rejection standard of 38 dB determined with a signal-to-noise ("S/N") ratio of 12 dB.[2] The Commission also proposes a requirement that scanners not be able to receive a signal level of 5 mV/m or less in the Cellular Service bands for any tunable frequency.[3]

As a threshold matter, since April, 1997, Tandy has required that all new scanners delivered to it for retail must meet the 38dB image rejection criteria proposed in the Uniden Petition.[4] The effect of using a test method featuring a S/N ratio of 12 dB, however, is currently unclear. Manufacturers must be given adequate time to determine that this measuring technique is reasonable and achievable. Also unclear is whether mandating

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[2] NPRM at ¶¶ 6-7.

[3] Id. at ¶ 8.

[4] Tandy believes that it is the only retailer in the Nation that already insists upon compliance with the standards proposed in the Uniden Petition.

that scanners not be able to receive a signal level of 5 mV/m or less in the Cellular Service bands will have any tangible benefit.

More importantly, the Commission must consider that consumer electronics product manufacturing cycles currently average approximately eighteen months. To the extent that manufacturers will be required to develop new designs to comply with the measuring techniques discussed in the NPRM, these manufacturers must be given adequate time to test existing products or to modify designs already in development to comply with any new rules. As discussed more fully below, Tandy urges the Commission to provide manufacturers and retailers such additional time to test products and to ensure the compliance of new designs.

III. PREVENTION OF SCANNER MODIFICATION

To further prevent the modification of scanners, the Commission proposes a requirement that scanners be designed so that the tuning and control circuitry is inaccessible and that any attempt to modify the scanner will likely render the unit inoperable.[5] The Commission notes that manufacturers could fulfill such requirements covering the control and tuning circuitry with epoxy[6] or by encasing the control and tuning circuitry in a metal compartment that cannot be removed.[7]

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[5] NPRM at ¶ 10.

[6] Id.

[7] Id.

As a general matter, Tandy supports the proposed requirement that scanners be designed so that the electronics pertinent to receiving Cellular Service transmissions are inaccessible. In view of the current lack of available alternatives, Tandy also endorses the option of applying epoxy to the pertinent circuitry to prevent modification for the time being. Nevertheless, Tandy notes that such use of epoxy has two major drawbacks.

First, covering all or part of a scanner's printed circuit board with epoxy could render it impossible to make needed future repairs to the unit, forcing a consumer to replace a malfunctioning scanner in its entirety instead of paying for more limited technical service. Second, applying epoxy to relevant circuitry in a scanner could serve as an unintended roadmap for an individual intent on modifying the scanner illegally. In the process of discouraging such modifications, the use of an obvious marker such as epoxy could, in some cases, render such modifications easier for a determined individual. For these reasons, Tandy urges the Commission to permit scanner manufacturers sufficient latitude within the new rules to employ better methods of rendering scanner circuitry inaccessible as those methods become available.

Tandy also urges the Commission to modify the language of its proposed Rule to recognize that different scanner components might need to be rendered inaccessible to achieve the Commission's goals. Specifically, proposed Section 15.121(a)(2) would require that the "tuning and control circuitry" be rendered

inaccessible.[8] Yet, Tandy believes that many of the latest illegal modifications of scanners were made to the filtering circuitry, which is not addressed in the Commission's proposed rule. Given the rapid development of technology and expertise of consumer electronics manufacturers, Tandy suggests that proposed Section 15.121(a)(2) be redrafted to preserve the discretion of manufacturers regarding which circuits or components must be rendered inaccessible to frustrate the type of scanner modifications at issue here. As scanner designs continue to evolve, manufacturers will be in the best position to determine the appropriate points of protection to fulfill the Commission's "inaccessibility" mandate. A more general "inaccessibility" mandate also will reduce the likelihood that the Commission will be forced to revisit this issue in the future.

IV. INFORMATION REQUIRED FOR FILING

Tandy also supports Uniden's proposal that all scanner equipment authorization applications automatically be afforded confidential treatment under the Commission's Rules.[9] At the same time that the Commission undertakes to make it more difficult to access the technical components of scanners, the Commission also should make it more difficult for individuals to obtain the important technical details of scanners that are set forth in equipment authorization applications. Since such equipment authorization applications are required to be filed by

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[8] Id. at Appendix B, ¶ 5.

[9] Id. at ¶ 14.

Commission Rule, moreover, the applicant should not be forced to pay a fee to obtain confidential treatment. Confidential treatment of these equipment authorization applications is squarely in the public interest, and the Commission should ensure that such treatment is applied automatically and without additional cost to the manufacturer.

V. SCANNING RECEIVER DEFINITION

In the NPRM, the Commission invites comment on whether its current definition of "scanning receiver" should be modified "to close any perceived loop-holes that might be used to thwart the objectives of our scanning receiver rules."[10] Tandy does not believe that such a definition change is advisable. First, adding to the definition of "scanning receiver" will do little to address the problem of illegal modification of scanner units already within the Commission's definition. Moreover, writing a more inclusive definition always creates the possibility of affecting products and components that are not related to the problem at hand. If a broader definition of "scanning receiver" will not materially contribute to solving the current problem of illegal scanner modification, such an overinclusive new definition could prove to be more trouble than it is worth.

VI. TEST EQUIPMENT AND KITS

The Commission also proposes to codify its current policy of exempting legitimate test equipment from the definition of

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[10] Id. at ¶ 15.

"scanning receiver"[11] and to define test equipment as equipment that is "not marketed or sold to the general public and is used by professional technical personnel in conjunction with testing of equipment of systems or for scientific investigations."[12] Tandy supports the current policy of exempting from the definition of scanning receiver legitimate test equipment, which is generally obtained by professional technicians through direct mail order and retail outlets.

It is important, however, to note the following. As a general matter, legitimate test equipment is fairly expensive, and it is not typically purchased by members of the general public. Nevertheless, a legitimate retailer or direct marketer of specialty electronics, parts, or test equipment would have no truly effective way of preventing the sale of a such equipment to a determined individual posing as a "professional." Tandy believes the real problem in this context lies with the sale of cheap scanners labeled as "test equipment" when, in fact, the only intended use of the units are illegally to intercept Cellular Service transmissions. Such equipment serves no legitimate purpose other than to avoid the requirements of the law.

For these reasons, Tandy supports the Commission's effort to define "Test Equipment" to eliminate falsely-labeled, non-testing units, but Tandy opposes the inclusion of the words "that is not

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[11] Id. at ¶ 17.

[12] Id. at Appendix B, ¶ 2.

marketed or sold to the general public" in the new definition.[13] Such a broad definition could have a chilling effect on the ability or willingness of legitimate retailers and direct marketers to sell true "Test Equipment" to actual professional technicians. More importantly, even with such a clause in the definition, determined individuals may well still be able to purchase true test equipment for illegal purposes. Tandy urges the Commission to focus its definition on the very real problem of falsely-labeled non-testing equipment. Tandy also supports the Commission's proposal to prohibit the importation and manufacture of scanner kits that are capable of receiving Cellular Service transmission.[14]

VII. EFFECTIVE DATE

Finally, the Commission proposes that the rules outlined in the NPRM will become effective 90 days from the date of publication of the final rules in the Federal Register.[15] While Tandy agrees that it is important to act quickly to ensure the privacy of Cellular Service users, Tandy urges the Commission to provide more time for manufacturers and retailers to adapt to the substantive provisions proposed in the NPRM. As noted above, RadioShack already requires that all new scanners delivered to it for retail must meet the 38dB image rejection criteria proposed in the Uniden Petition. Yet, RadioShack sources product from a

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[13] Id.

[14] Id. at ¶ 18.

[15] Id. at ¶ 21.

number of manufacturers, and it is not clear if each of these manufacturers can comply with new test method and circuit protection regulations in a 90 day period. Accordingly, to provide sufficient time for all scanner manufacturers and retailers to adapt to the Commission's new rules, Tandy urges the Commission the make the rules effective one year from the date of publication in the Federal Register.

VIII. CONCLUSION

Tandy fully supports the Uniden Petition and the efforts of the Commission to curtail the illegal modification of scanners to receive Cellular Service transmissions. Tandy urges the Commission to adopt rules for this purpose consistent with the Comments presented here.

Respectfully submitted,

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